

Amendments to the Claims:
Listing of the Claims

1. (currently amended) A method for inducing apoptosis in ~~hyperproliferative~~ human epithelial carcinoma cells comprising: ~~increasing the level of human KChAP protein in the cells of at least one potassium channel modulatory protein selected from the group consisting of human KChAP protein, a biologically active variant of human KChAP protein, and a biologically active KChAP related protein~~ delivering to and expressing in said cells a nucleic acid encoding human KChAP protein.

2. canceled

3. (currently amended) The method of claim 1 wherein ~~levels of said protein is increased in said cells by contacting said cells with a nucleic acid encoding at least one potassium channel modulatory protein under conditions permitting uptake of said nucleic acid by the cell, said nucleic acid comprising comprises:~~ i) a sequence encoding native KChAP protein, ~~a biologically active variant of KChAP protein, or a biologically active KChAP related protein,~~ and ii) a promoter active in the ~~cancer~~ in the human epithelial carcinoma cells, wherein the promoter is operably linked to the sequence encoding said protein.

4. (currently amended) A method for inducing apoptosis in human prostate cancer or breast cancer cells comprising: ~~increasing the level in the cells of at least one potassium channel modulatory protein selected from the group consisting of human KChAP protein and a biologically active variant of human KChAP protein~~ delivering to and expressing in said cells a nucleic acid encoding KChAP protein.

5. canceled

6. (currently amended) The method of claim 4 wherein ~~levels of said protein is increased in the cancer cells by contacting the cancer cells with a nucleic acid encoding at least one potassium channel modulatory protein under conditions permitting uptake of said nucleic acid by the cell, said nucleic acid comprising comprises:~~ i) a sequence encoding human KChAP protein ~~and a biologically active variant of KChAP protein;~~ and ii) a promoter active in the cancer cells,

wherein the promoter is operably linked to the sequence encoding said protein.

7. (original) The method of claim 4 wherein the cancer cells comprise a native p53 protein.

8. (original) The method of claim 4 wherein the cancer cells comprise a mutant p53 protein.

9. (canceled)

10. (currently amended) The method of claim 6 wherein the cancer cells are in a tumor in a subject, and wherein the nucleic acid is ~~administered to the subject~~ delivered to the cells by intratumoral or intralesional injection.

11. (currently amended) A method of treating a subject with a ~~hyperproliferative disorder~~ an epithelial carcinoma comprising: administering a pharmaceutical composition to said subject, said pharmaceutical composition comprising ~~at least one agent selected from the group consisting of: a) at least one potassium channel modulatory protein selected from the group consisting of human KChAP protein, a biologically active variant of human KChAP protein, and a biologically active KChAP related protein; and b) a nucleic acid encoding at least one potassium channel modulatory protein,~~ comprising: i) a sequence encoding human KChAP protein, ~~a biologically active variant of human KChAP protein, or a biologically active KChAP related protein,~~ and ii) a promoter active in the epithelial carcinoma cells ~~cancer cell~~, wherein the promoter is operably linked to the sequence encoding said protein; and wherein the pharmaceutical composition is administered such that the nucleic acid is taken up by and expressed in the epithelial carcinoma cells.

12. canceled

13. canceled

14. (currently amended) The method of claim 11 wherein the ~~hyperproliferative disorder~~ epithelial carcinoma is prostate cancer.

15. (currently amended) The method of claim 12 wherein the nucleic acid encodes a protein having the sequence set forth in SEQ ID NO: 2 ~~pharmaceutical composition comprises a nucleic acid comprising a sequence encoding human KChAP protein or a biologically active variant of human KChAP protein, wherein said variant comprises a sequence which is at least 90% identical to human KChAP protein and has the ability to induce *apoptosis* in the cells of said cancer.~~

16. canceled

17. (currently amended) The method of claim 12 wherein the ~~active agent is a~~ nucleic acid ~~which is in a vector or associated with a liposome~~ targeted to said epithelial carcinoma cells.

18. (currently amended) The method of claim 17 wherein the pharmaceutical composition is administered by intratumoral or intralesional injection.

19. canceled

20-23 canceled

24. (new) The method of claim 17 wherein the nucleic acid is in a viral vector.

25. (new) The method of claim 12, wherein the nucleic acid is conjugated with an antibody which binds to the epithelial carcinoma cells.